

out multitudes of small long cylindrical and transparent stalks, not exactly straight, but a little bended with the weight of a round and white knob that grew on the top of each of them; many of these knobs I observ'd to be very round, and of a smooth surface, such as A A, &c. others smooth likewise, but a little oblong, as B; several of them a little broken, or cloven with chops at the top, as C; others flitter'd as 'twere, or flown all to pieces, as D D. The whole substance of these pretty bodies was of a very tender constitution, much like the substance of the softer kind of common white Mushrooms, for by touching them with a Pin, I found them to be bruised and torn; they seem'd each of them to have a distinct root of their own; for though they grew neer together in a cluster, yet I could perceive each stem to rise out of a distinct part or pore of the Leather; some of these were small and short, as seeming to have been but newly sprung up, of these the balls were for the most part round, others were bigger, and taller, as being perhaps of a longer growth, and of these, for the most part, the heads were broken, and some much wasted, as E; what these heads contain'd I could not perceive; whether they were knobs and flowers, or seed cases, I am not able to say, but they seem'd most likely to be of the same nature with those that grow on Mushrooms, which they did, some of them, not a little resemble.

Both their smell and taste, which are active enough to make a sensible impression upon those organs, are unpleasant and noisome.

I could not find that they would so quickly be destroy'd by the actual flame of a Candle, as at first sight of them I conceived they would be, but they remain'd intire after I had past that part of the Leather on which they stuck three or four times through the flame of a Candle; so that, it seems they are not very apt to take fire, no more then the common white Mushrooms are when they are sappy.

There are a multitude of other shapes, of which these *Microscopical* Mushrooms are figur'd, which would have been a long Work to have described, and would not have suited so well with my design in this Treatise, onely, amongst the rest, I must not forget to take notice of one that was a little like to, or resembled, a Sponge, consisting of a multitude of little Ramifications almost as that body does, which indeed seems to be a kind of Water-Mushroom, of a very pretty texture, as I else-where manifest. And a second, which I must not omit, because often mingled, and neer adjoining to these I have describ'd, and this appear'd much like a Thicket of bushes, or brambles, very much branch'd, and extended, some of them, to a great length, in proportion to their Diameter, like creeping brambles.

The manner of the growth and formation of this kind of Vegetable, is the third head of Enquiry, which, had I time, I should follow: the figure and method of Generation in this concrete seeming to me, next after the Enquiry into the formation, figuration, or chrysalization of Salts, to be the most simple, plain, and easie; and it seems to be a *medium* through which he must necessarily pass, that would with any likelihood investigate the *forma informans* of Vegetables: for as I think that he shall find it a very difficult task, who undertakes to discover the form of Sa-

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line crystallizations, without the consideration and prescience of the nature and reason of a Globular form, and as difficult to explicate this configuration of Mushrooms, without the previous consideration of the form of Salts; so will the enquiry into the forms of Vegerables be no less, if not much more difficult, without the fore-knowledge of the forms of Mushrooms, these several Enquiries having no less dependance one upon another then any select number of Propositions in Mathematical Elements may be made to have.

Nor do I imagine that the skips from the one to another will be found very great, if beginning from fluidity, or body without any form, we descend gradually, till we arrive at the highest form of a brute Animal's Soul, making the steps or foundations of our Enquiry, *Fluidity, Orbiculation, Fixation, Angulization, or Crystallization, Germination or Ebullition, Vegetation, Plantation, Animation, Sensation, Imagination.*

Now, that we may the better proceed in our Enquiry, It will be requisite to consider:

First, that Mould and Mushrooms require no seminal property, but the former may be produc'd at any time from any kind of *putrifying* Animal, or Vegetable Substance, as Flesh, &c. kept moist and warm, and the latter, if what *Mathiolus* relates be true, of making them by Art, are as much within our command, of which Matter take the *Epitomie* which Mr. *Parkinson* has deliver'd in his *Herbal*, in his Chapter of *Mushrooms*, because I have not *Mathiolus* now by me: *Unto these Mushrooms* (saith he) *may also be adjoyn'd those which are made of Art* (whereof *Mathiolus* makes mention) *that grow naturally among certain stones in Naples, and that the stones being digg'd up, and carried to Rome, and other places, where they set them in their Wine Cellars, covering them with a little Earth, and sprinkling a little warm water thereon, would within four days produce Mushrooms fit to be eaten, at what time one will: As also that Mushrooms may be made to grow at the foot of a wilde Poplar Tree, within four days after, warm water wherein some leaves have been dissolv'd shall be pour'd into the Root (which must be slit) and the stock above ground.*

Next, that as Mushrooms may be generated without seed, so does it not appear that they have any such thing as seed in any part of them; for having considered several kinds of them, I could never find any thing in them that I could with any probability ghes to be the seed of it, so that it does not as yet appear (that I know of) that Mushrooms may be generated from a seed, but they rather seem to depend merely upon a convenient constitution of the matter out of which they are made, and a concurrence of either natural or artificial heat.

Thirdly, that by several bodies (as Salts and Metals both in Water and in the air, and by several kinds of sublimations in the Air) actuated and guided with a congruous heat, there may be produc'd several kinds of bodies as curiously, if not of a more compos'd Figure; several kinds of rising or Ebulliating Figures seem to manifest; as witness the shooting in the Rectification of spirits of *Urine, Hart-horn, Bloud, &c.* witness also the curious branches of evaporated dissolutions, some of them against the

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